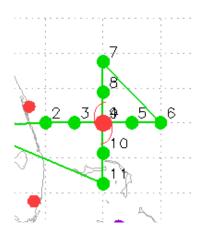
#### APPENDIX A

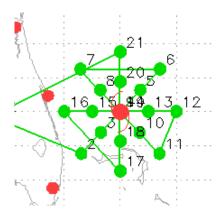
# Standard Patterns and Expendable Locations

#### **CURRENT AS OF FEBRUARY 22, 2018**

**Figure-4:** Centers, mid-points and turn points of each leg [10 sondes] In-pattern duration (105 n mi legs): ~ 2 h 15 min (P-3), 1 h 20 min (G-IV)



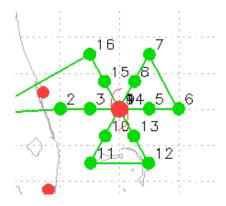
**Rotated Figure-4:** Centers, mid-points and turn points of each leg [20 sondes] In-pattern duration (105 n mi legs): ~ 5 h (P-3), 2 h 55 min (G-IV)



#### APPENDIX A

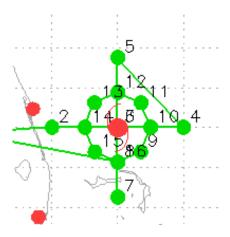
### Standard Patterns and Expendable Locations

**Butterfly:** Centers, mid-points and turn points of each leg [15 sondes] In-pattern duration (105 n mi legs): ~ 3 h 25 min (P-3), 2 h (G-IV)



**P-3 Circumnavigation:** Center of first pass, end points of Figure-4 and vertices of octagon [14 sondes]

In-pattern duration (105 n mi legs):  $\sim$  4 h 5 min

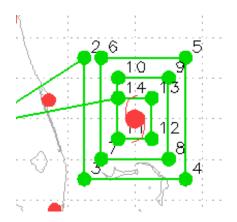


#### APPENDIX A

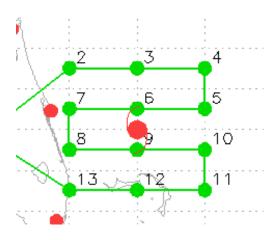
#### Standard Patterns and Expendable Locations

**Square Spiral:** Turn points [13 sondes]

In-pattern duration (180 n mi on a side): ~ 5 h 50 min (P-3), 3 h 20 min (G-IV)



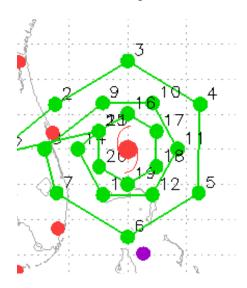
**Lawnmower:** Turn points and mid-points of N-S legs [12 sondes] In-pattern duration (240 n mi by 180 n mi): ~ 4 h 20 min (P-3), 2 h 25 min (G-IV)

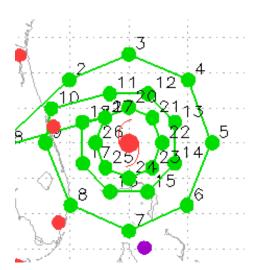


# APPENDIX A

### Standard Patterns and Expendable Locations

**G-IV Circumnavigation:** Vertices of hexagon (octagon) [18 (24) sondes] In-pattern duration (150, 90, 60 n mi): ~ 4 h 25 min (4 h 35 min)





#### **APPENDIX A**

#### Standard Patterns and Expendable Locations

**G-IV Star/Star with Circumnavigation:** Vertices of star [13/19 sondes with hexagonal circumnavigation]

In-pattern duration (outer points, 210 n mi; inner points, 90 n mi): 4 h In-pattern duration with circumnavigation: 5 h 15 min

Note: for outer endpoint adjustments, every  $0.5^{\circ}$  bump inward/outward, subtracts/adds  $\sim 45$  min from/to the pattern

Note: inner endpoint adjustments, going from 90 n mi to 60 n mi subtracts ~15 min from the pattern

